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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,193	03/25/2002	Jean-Pierre Molitor	H 4157 PCT/US	1128

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COGNIS CORPORATION
PATENT DEPARTMENT
300 BROOKSIDE AVENUE
AMBLER, PA 19002

EXAMINER

MARX, IRENE

ART UNIT	PAPER NUMBER
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1651

MAIL DATE	DELIVERY MODE
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07/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/980,193

Applicant(s)

MOLITOR ET AL.

Examiner

Irene Marx

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-35 is/are pending in the application.
- 4a) Of the above claim(s) 23-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

The amendment filed 5/1/07 is acknowledged. Claims 12-22 are being considered on the merits.

Claims 23-35 are withdrawn from consideration as directed to a non-elected invention.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 12-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tellier *et al.* (U.S. Patent No. 4,401,762) taken with Inlow *et al.*, Kopp-Holtwiesche (DE 3738812) and Forster *et al.* (WO 95/11660).

Each of Tellier *et al.* and Inlow *et al.* discloses a fermentation medium comprising nutrients and a microemulsion for propagating microorganisms wherein the size distribution of the droplets overlaps with the size of the droplets in the instantly claimed medium and which contains the same ingredients (see, e.g., Tellier *et al.* col. 3) and Inlow *et al.*, Example 8, Example 9 and Example 2). It is noted that Tellier specifically indicates that it is preferable to use oils, such as vegetable oils, which are vegetable triglycerides, in the microemulsion. The vegetable oil can serve as a carbon source for microorganisms (col. 3, lines 63-66). In addition Tellier *et al.* recognize that it is favorable to add alcohols or esters as ingredients in a microemulsion product (see, e.g., col. 3, lines 49-54). In addition, Kopp-Holtwiesche discloses a similar microbial reaction medium containing methyl laurate or other fatty acid methyl esters (See, e.g., Examples 1 and 3).

With regard to phase inversion temperature microemulsions, Forster *et al.* adequately demonstrate that it is routine in this art to use a variety of triglycerides for the production of various emulsions (See, e.g. page 5, last paragraph). The Forster *et al.* reference also discloses

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the use of two emulsifiers in combination wherein one acts as a coemulsifier (See, e.g., page 8) and various amounts and combinations of these emulsifiers. The emulsions are produced by the "phase inversion temperature" (PIT) method.

While the compositions of Forster are not explicitly disclosed as being fermentation media for microorganisms, the reference adequately demonstrates that PIT microemulsions were old and well known at the time the claimed invention was made. In addition, cosmetic compositions contain ingredients that are nutrients for fermentation by microorganisms and routinely are provided with preservatives to avoid rapid microbial deterioration.

The ranges of the ingredient content discussed in the references appear to be substantially the same as claimed. However, even if they are not, the adjustment of the amounts used in the fermentation medium preparation for optimization purposes identified as result-effective variables cited in the references would have been *prima facie* obvious to a person having ordinary skill in the art, since such adjustment is at the essence of biotechnical engineering.

It is also noted that the composition is claimed as containing a "phase inversion temperature emulsion", which constitutes claiming as a product-by-process. Since the Patent and Trademark Office is not equipped to manufacture products by the myriad of processes put before it and then obtain prior art products and make comparisons therewith, a lesser burden of proof is required to make out a case of *prima facie* obviousness or anticipation for product-by-process claims because of their peculiar nature than when a product is claimed in the conventional manner. MPEP 2113.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the claimed invention was made to modify the fermentation medium of Tellier *et al.* and/or Inlow *et al.* by substituting microemulsions containing animal oils or fatty acids with microemulsions containing fatty acid alkyl esters, and methyl esters in particular, or vegetable oils as suggested by the teachings of Tellier *et al.* and Kopp-Holtwiesche and/or a variety of oils including specific vegetable oils as taught by Forster *et al.* (WO 95/11660), as well as altering the proportions of the various ingredients for optimization purposes for the expected economic benefit of enhancing the bioavailability of the lipids and oxygen to recalcitrant microbial that will support their growth and proliferation as well as providing the option of not having the filter sterilize the lipid fraction and the rest of the media components separately. The growth and

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proliferation of recalcitrant microorganism has the expected benefit of increasing the yields of pharmaceutically and industrially important metabolites and/or aiding in the identification of pathogenic microorganisms.

Thus, the claimed invention as a whole was clearly *prima facie* obvious, especially in the absence of evidence to the contrary.

Response to Arguments

Applicant's arguments as they pertain to the above rejection have been fully considered but they are not deemed to be persuasive.

Applicant now argues the unexpected discovery that if a hydrophobic substrates or co-substrate is used in a fermentation as an oil in water microemulsion, the amount of energy and mechanical stress required to incorporate the required amount of oxygen into the system can be reduced. However, this contention has not been substantiated with appropriate evidence. It is well settled that arguments by counsel do not constitute evidence. The "whereby clause" of the composition claim does not provide a structural limitation of the composition.

In addition, at least Tellier *et al.* uses a microemulsion to provide energy to the microorganisms and the disclosed culture medium naturally reduces the amount of energy and mechanical stress required to provide oxygen, even though this is not explicitly stated in the reference. In addition, it must be remembered that the claims are not directed to a fermentation process, but rather to a composition, wherein the intended use is immaterial.

Regarding the issue of differences between an oil- in-water and water-in-oil emulsions, it is noted that the fermentation medium as claimed does not indicate the amount of the "member with an average droplet size of from 50 to 400 nm" present in the composition. Therefore it cannot be readily determined whether any differences between the reference composition and the claimed composition are patentably significant in a fermentation medium. The Patent and Trademark Office is not equipped to conduct experimentation in order to determine whether or not applicants' fermentation medium differs and, if so, to what extent, from the media discussed in the references, since the percentages of ingredients are not part of the claimed invention.

Therefore the rejection is deemed proper and it is adhered to.

No claim is allowed.

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THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

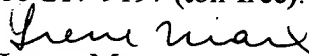
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irene Marx whose telephone number is (571) 272-0919. The examiner can normally be reached on M-F (6:30-3:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Wityshyn can be reached on 571-272-0926. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Irene Marx
Primary Examiner
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